Complete Guide to Microsoft Certified DevOps Engineer Expert

Software teams today are expected to deliver applications quickly while maintaining security, reliability, and quality. DevOps helps organizations bring development and operations together through automation, collaboration, continuous delivery, and better operational practices.The Microsoft Certified DevOps Engineer Expert is a valuable learning path for professionals who want to strengthen their skills in cloud-based DevOps, CI/CD, infrastructure automation, security, monitoring, and modern application delivery.

Microsoft Certified DevOps Engineer Expert at a Glance

Category	Details
Track	DevOps / Cloud
Level	Expert
Who It's For	Software Engineers, DevOps Engineers, Cloud Engineers, Technical Leads and Managers
Prerequisites	Knowledge of software development, cloud, Git, infrastructure and basic DevOps
Skills Covered	CI/CD, automation, infrastructure, security, containers and monitoring
Recommended Order	Git → Cloud → CI/CD → IaC → Security → Containers → Monitoring

What Is Microsoft Certified DevOps Engineer Expert?

This certification path focuses on the practical capabilities needed to manage modern software delivery and operations.It covers how teams automate builds and deployments, manage infrastructure, introduce security into delivery pipelines, and monitor applications after release.The real value comes from combining certification preparation with hands-on engineering experience.

Who Should Take It?

This certification is a good choice for professionals who are already working with software, infrastructure, or cloud technologies.

It can be useful for:

- Software Engineers moving into DevOps
- DevOps and Cloud Engineers
- System Administrators

- Platform Engineers
- Technical Leads
- Engineering Managers
- Professionals responsible for application deployment and automation

Prerequisites

You should have a basic understanding of:

- Software development
- Git and source control
- Cloud computing
- Linux or Windows administration
- Networking
- Application deployment
- Scripting and automation
- Basic security and monitoring

Practical experience is strongly recommended because DevOps is primarily an implementation-focused discipline.

Skills You'll Gain

A structured DevOps learning program can help you develop skills in:

- Source control and Git workflows
- CI/CD pipeline design
- Automated testing and deployment
- Infrastructure as Code
- Cloud resource management
- Container-based application delivery
- Security and DevSecOps
- Monitoring and observability
- Release management
- Troubleshooting and reliability

Real-World Projects You Should Be Able to Do

After completing the learning path, you should be comfortable working on projects such as:

- Creating an automated CI/CD pipeline
- Deploying infrastructure through code
- Building and deploying a containerized application
- Adding security checks to a delivery pipeline
- Setting up application and infrastructure monitoring

- Implementing automated deployment and rollback processes

These projects are often more useful for career growth than simply listing a certification on a resume.

Recommended Learning Order

Do not try to learn every DevOps technology at the same time.

A practical sequence is:

Git → Cloud Fundamentals → CI/CD → Infrastructure as Code → Security → Containers → Monitoring → Real-World Project

Start with source control and basic cloud concepts. Once those are clear, move into automation and deployment.

Then add infrastructure, security, containers, and observability.

Finally, bring everything together in one end-to-end project.

Preparation Plan

7–14 Days

Suitable for experienced DevOps professionals.

Focus on revision, scenario-based learning, hands-on labs, weak areas, and practice projects.

30 Days

Spend the first week on fundamentals and Git. Use the second week for CI/CD and infrastructure. Spend the third week on security, containers, and monitoring. Use the final week for projects and revision.

60 Days

This is a better option for professionals who are still developing their DevOps foundation.

Spend the first month building core knowledge and the second month on advanced topics, hands-on implementation, troubleshooting, and an end-to-end project.

Common Mistakes

Avoid these mistakes during preparation:

- Studying only theory
- Memorizing commands without understanding their purpose
- Ignoring Git and source control
- Skipping hands-on projects
- Treating security as a separate final step
- Ignoring monitoring and troubleshooting
- Trying to learn too many tools at once
- Preparing only for the exam instead of developing practical skills

Choose Your Path

DevOps can lead to several specialized career directions.

DevOps

Best for professionals interested in automation, cloud infrastructure, CI/CD, deployment, and engineering productivity.

DevSecOps

Ideal for engineers who want to combine software delivery with security, compliance, vulnerability management, and secure automation.

SRE

A strong choice for professionals interested in reliability, observability, incident management, automation, and production systems.

AIOps / MLOps

Suitable for professionals interested in AI, machine learning operations, intelligent monitoring, automation, and model deployment.

DataOps

A good path for engineers working with data pipelines, data quality, automation, and modern data platforms.

FinOps

Useful for professionals who want to connect cloud engineering with cost management, optimization, financial accountability, and business value.

Training and Certification Support

Several institutions provide training and certification-oriented learning for DevOps and related disciplines.**DevOpsSchool** focuses on practical DevOps training and hands-on implementation. **Cotocus** and **Scmgalaxy** provide learning resources and professional training around DevOps and modern engineering practices. **BestDevOps** also focuses on DevOps skills and career-oriented learning.For specialization, **devsecopsschool**, **sreschool**, **aiopsschool**, **dataopsschool**, and **finopsschool** focus on DevSecOps, SRE, AIOps/MLOps, DataOps, and FinOps respectively.When selecting a training provider, look beyond the certificate. Consider practical labs, trainer experience, project work, curriculum depth, and support.

Best Next Certification

Your next certification should depend on your career objective.

Choose a **DevSecOps** path if security interests you. Move toward **SRE** if reliability is your priority. Explore **AIOps/MLOps** for AI-focused careers, **DataOps** for data engineering, or **FinOps** for cloud cost and business management.

The best progression is not simply collecting certificates. It is combining certification with projects and real production experience.

Why This Certification Matters

DevOps engineers are increasingly expected to understand the complete software delivery lifecycle.That means knowing how code moves from a developer's workstation into production, how infrastructure is created, how deployments are automated, how security is integrated, and how production systems are monitored.A certification can provide a structured framework for developing these skills, but practical experience is what turns knowledge into professional capability.

Conclusion

The **Microsoft Certified DevOps Engineer Expert** is a strong learning path for professionals who want to build advanced DevOps and cloud engineering capabilities.The most effective approach is to learn the fundamentals, practice each concept, build real projects, and then apply those skills in production environments.